

**Shasta County Department of Resource Management
Air Quality Management District**

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Evaluation Report

**Regarding Proposed Issuance of a
Title V Operating Permit to**

Sierra Pacific Industries, Anderson Division

for Equipment Located at:

**19794 Riverside Avenue
Anderson, CA 96007**

July 10, 2000

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Introduction

The District proposes to issue a Title V operating permit to Sierra Pacific Industries, Anderson Division. This evaluation, with the proposed Title V operating permit, sets forth the legal and factual basis for the conditions contained in the proposed permit.

Facility Description

Sierra Pacific Industries, Anderson Division, is a "Qualifying Facility" capable of providing 80,000 lb/hr process steam to power process equipment and generate electricity through the use of steam turbines. Sierra Pacific Industries, Anderson Division, Inc. is considered a Federal Major Source and subject to the Title V permitting program due to the facility's potential to emit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO).

Equipment Description

The major equipment located at the Sierra Pacific Industries, Anderson Division, facility include:

- 1 Each - 80,000 lbs/hr. Wellons Fuel Cell Type Wood-Fired Boiler
- 1 Each - Wellons Two-Field Electrostatic Precipitator
- 1 Each - Wellons Multiclone Ash Collector
- 1 Each - Selective Non-Catalytic Reduction Ammonia Injection System
- 1 Each - Air Conveyance System with 2 cyclones with combined flow rate of 48,000 DSCFM
- 1 Each - Planer Shaving / Sawdust Truck Loading Bin
- 1 Each - 30,400 cu. ft. Fuel Storage Bin

As approved by the U.S. Environmental Protection Agency (U.S. EPA), all equipment exempted from permit, per Shasta County Air Quality Management District (District) Rule 2.5, are each considered an insignificant activity. These include the following:

- 1 Each- Solvent Degreasing Tank
- 1 Each- Above Ground 10,000gal. Gasoline Storage Tank

APPLICABLE FEDERAL REQUIREMENTS:

Based upon information submitted in the application and the district's review, the following applicable federal requirements apply to this facility:

SIP Requirements:

Rule 1:2 Definitions

This rule lists the definitions used throughout the District rule book. This rule is an administrative rule, and Sierra Pacific Industries, Anderson Division, certified compliance in the application. However, the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2.1A Permits Required

These are the District's requirements for preconstruction permits and permits to operate. This rule is an administrative rule, and Sierra Pacific Industries, Anderson Division, certified compliance in the application. However, the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:5 Exemptions

This rule lists the types of devices or operations that the Air Pollution Control Officer (APCO) may exempt. This rule is an administrative rule and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:6 Open Burning (2:6.a.4.c & 2:6.b)

This rule lists the regulations required to conduct open burning operations. However, Sierra Pacific Industries, Anderson Division, does not conduct open burning operations at this facility and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:7 Conditions for Open Burning

This rule lists the regulations required to conduct open burning operations. However, Sierra Pacific Industries, Anderson Division, does not conduct open burning operations at this facility and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:10 Action on Applications

This rule requires that an application for an Authority to Construct be filed in a manner and on the form prescribed by the APCO. This rule is an administrative rule and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:11 Fees

This rule requires that renewal fees be paid in accordance with the fee schedule contained in the rule. The District has revised this rule and the fee schedule has also changed. In addition, Rule V mandates that a presumptive fee schedule be used in conjunction with the current fees collected by the District. Therefore, this rule was not included in the proposed Title V permit.

Rule 2:12 Expiration of Applications

This rule requires that an Authority to Construct application will expire after the Permit to Operate has been issued or two years after the Authority to Construct was issued unless construction has commenced on the site. It also states that a Permit to Operate application will expire two years after being issued. This rule is an administrative rule and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:14 Testing Facilities

This rule requires the operator to provide and maintain testing and sampling facilities as specified in the Authority to Construct or Permit to Operate. This requirement is included in the proposed Title V permit.

Rule 2:17 Status of permit (formerly Rule 2:20)

This rule requires the permittee to notify the District in writing of any significant change in any item of information submitted to the District. This requirement is included in the proposed Title V permit.

Rule 2:18 Applications Deemed Denied

This rule requires that unless information is submitted in order to deem an application complete within 30 days, the application is denied. This rule is an administrative rule and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 2:21 Defacing Permit (formerly Rule 2:24)

This rule requires that a permit not be defaced. This requirement is included in the proposed Title V permit.

Rule 2:23 Posting of Permit

This rule requires that the permit be posted. This requirement is included in the proposed Title V permit.

Rule 2:25 Public Records

This rule lists the requirements for what may or may not be public records and includes labeling requirements. This requirement is included in the proposed Title V permit.

Rule 2:26 Revocation of Permit

This rule lists the requirements for revoking a permit. This requirement is included in the proposed Title V permit.

Rule 2:27 Submittal of Information

This rule is an administrative rule, and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 3:1 Applicability of State Laws

This rule adopts by reference all state and federal rules for air contaminants. This requirement is included in the proposed Title V permit.

Rule 3:2 Specific Air Contaminants

This rule specifies limits for emissions of:

- 1) Combustion particulate matter in gr/dscf;
- 2) Particulate matter less than or equal to 10 microns in gr/dscf;
- 3) All other particulate matter in gr/dscf
- 4) Particulate matter process weight: maximum hourly emissions as a function of process weight in tons per hour;
- 5) Oxides of Sulfur (as SO₂) in ppm;
- 6) Oxides of Nitrogen (as NO₂) in ppm; and
- 7) Opacity.

The requirements of this rule are included in the proposed Title V permit. Other permit conditions found in this Title V Permit limiting emissions from the boiler are more stringent than the emission limitations of this rule and, therefore, subsume the requirements of this rule for this particular emission unit. (See section below titled “New Source Performance Standards”)

Rule 3:4 Industrial use of Organic Solvents

This rule requires that a control device achieving 85 percent control be utilized unless listed lb/day emission limits of solvents into the atmosphere are met. This requirement is included in the proposed Title V permit.

Rule 3:6 Circumvention

This rule requires that emissions cannot be concealed by circumvention. This requirement is included in the proposed Title V permit.

Rule 3:7 Enforcement

This rule requires that the rules and regulations be enforced by the APCO. This requirement does not pertain to Sierra Pacific Industries, Anderson Division. Therefore, this requirement was not included in the Title V permit.

Rule 3:9 Recommendations of Control Officer

This rule states that no recommendation of the APCO is a guarantee that the recommended device or process will result in compliance. This rule is an administrative rule, and the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 3:10 Excess Emissions

This rule requires certain reporting and corrective action in the case of emissions that exceed permit requirements. These requirements are included in the proposed Title V permit.

Rule 3:11 Local Rules

This rule states that any city or public agency, having authority to do so, may enact by ordinance more restrictive rules than contained in the District's rule book. Because this permit is a federal permit and does not concern local rules, the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 3:17 Organic Solvent Degreasing Operations

This rule required degreasing operations to meet design and operating practice specifications. This rule was repealed by the District when the District adopted a revised organic solvent operations rule. The new Rule 3:17 has not been submitted for inclusion into the SIP and, therefore, the District feels that the environmental benefits are not such that this rule should be included in the proposed Title V permit.

Rule 5 Additional procedures for issuing permits to operate for sources subject to Title V of the Federal Clean Air Act Amendments of 1990

This rule lists the requirements of the Title V program. All specific applicable requirements imposed by this rule are included in the proposed Title V permit.

40 CFR 82.161

This regulation requires that equipment utilizing ozone depleting substances be maintained by certified technicians. These requirements are included in the proposed Title V permit.

New Source Performance Standards (NSPS)

This facility is subject to 40 CFR Part 60 - Standards Of Performance For New Stationary Sources and Subparts A and Db. The requirements of these standards are included and are, in some instances, subsumed by other more stringent conditions in the proposed Title V permit.

The following streamlining demonstration for 40 CFR Part 60, Subpart Db Standards of Performance for Industrial/ Commercial Steam Generating Units will compare and identify where a more stringent rule applies to this facility.

Section 60.43b - Standard for particulate matter limits the emission of particulate matter to 0.10 lbs./million BTU heat input. The heat input of the Wellons wood fired boiler is 116.4 MMBtu/hr. As the calculation below shows, this equivalent limit of .076 gr/dscf is less stringent than the Best Available Control Technology (BACT) determination under the District's New Source Review Rule which required 0.01 gr/dscf @ standard temperature and pressure corrected to 12% CO₂. Also included is a limit of no more than 7 lbs/hr. and 29 tons/year. Condition #5 of the Title V permit is more stringent than, and assures compliance with, the limit expressed in Section 60.43b.

$$(.10 \text{ lb/MM Btu}) (\text{MM Btu}/9240 \text{ DSCF}) (7000 \text{ gr/lb}) = .076 \text{ gr/DSCF}$$

Section 60.43b paragraph (f)- Limits the operator of this source from discharging into the atmosphere any gases that exhibit greater than 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Condition #3 of the permit states this limit in addition to limiting the opacity to 40% for three(3) minutes in any one hour as stated in the California Health and Safety Code (CHSC) section 41701 and 41704. These are two different standards with different averaging times and are, therefore, being included in the Title V permit.

Section 60.44b (d) - Standard for nitrogen oxides requires that this facility not discharge into the atmosphere any gases that contain nitrogen oxides in excess of 0.30 lb/million Btu heat input. As the calculation below shows, this limit of 34.92 lb/hr. is less stringent than the equivalent BACT determination under the District's New Source Review Rule that required oxides of nitrogen to not exceed the more stringent of 21 pounds per hour, or 100 ppm at 12% CO₂ (24 hour average), or 115 ppm at 12% CO₂ (3 hour average). The annual emissions of NO_x shall not exceed 100 tons per year. The NO_x emissions shall be analyzed by California Air Resources Board (CARB) Method 100. This is found in condition #5(d).

$$(.30 \text{ lb/MMBtu})(116.4 \text{ MMBtu/hr}) = 34.92 \text{ lb/hr. NO}_x$$

Section 60.46b - Requires that the particulate matter emission standards and opacity limits under 60.43b apply at all times except during periods of startup, shutdown, or malfunction, that the nitrogen oxides emission standards under 60.44b. apply at all times, and that specific test methods and compliance demonstration procedures be used. Conditions #3 and 5 incorporate these requirements and assure compliance with this Section.

Section 60.46b paragraphs (c) & (d) - Require performance testing under these sections be used. Conditions #5 & 32 assure that these requirements are met by requiring testing according to Environmental Protection Agency (EPA) Method 5, CARB methods 1 through 5, and CARB Method 100. In addition, a continuous emission monitor is required for monitoring nitrogen oxides at all times according to Condition #23 and emission testing for particulate matter will be required yearly according to permit condition #32.

Section 60.48b(a) - Emissions monitoring for particulate matter requires the operator to install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged and record the output of the system. This section is satisfied by condition #23(a) where COMS are required to be installed and operated as well as by Condition 39 where it is required to conduct Method 9 observations.

Section 60.48b(b) - Emission monitoring for nitrogen oxides. This requires the facility to install, calibrate, maintain and operate continuous nitrogen oxides monitors and record the output of the system at all times the facility is in operation. This is required in permit condition number #23.

Section 60.48b(f) - Requires backup monitoring systems for nitrogen oxides. Condition #41 in the permit requires that backup systems be available 75% of the time.

60.49b(d) through (h) - Reporting and record keeping requirements identifies the record keeping information needed to demonstrate compliance with this section. These requirements are covered in permit conditions #23 through #49.

Prevention of Significant Deterioration (PSD) Permitting

This regulation sets the procedures for the review of new or modifications of existing major stationary emission sources. Since the Wellons wood-fired boiler was issued a PSD permit as the Authority to Construct for the facility, the conditions of the Authority to Construct are incorporated in the proposed Title V permit unless a specific condition was revised (or added) in subsequently issued Permits to Operate.

Risk Management Plans Preparation and Registration, 112 (r)

Section 112(r), Accidental Release Prevention and Management Program, affects facilities at which certain substances are present above the specified annual threshold. Sierra Pacific Industries, Anderson Division, is not required to submit a 112(r) Risk Management Plan.

REQUIREMENTS THAT DO NOT APPLY:

Rule 2:4 Permit to Sell or Rent

This rule pertains to the use of incinerators. There are no incinerators at this facility. Therefore, this requirement is not applicable to this facility.

Rule 2:8 Agricultural Burning

This rule applies only to agricultural burning operations. This facility does not conduct agricultural operations. Therefore, this requirement is not applicable to this facility.

Rule 3:5 Agricultural Uses

This rule exempts discharges in the course of applying agricultural materials. This facility does not apply agricultural materials. Therefore, this requirement is not included in the proposed Title V permit.

Rule 3:12 Reduction of Matter of Animal Origin (Except Curing of Glue)

This rule mandates controls for reducing animal matter. Sierra Pacific Industries, Anderson Division does not reduce animal matter as part of the process. Therefore, this requirement is not included in the proposed Title V permit.

Rule 3:14 Petroleum Dry Cleaners

This rule mandates control and operating practices for dry cleaning operations. Sierra Pacific Industries, Anderson Division, does not operate a dry cleaning machine at this facility. Therefore, this requirement is not included in the proposed Title V permit.

Rule 3:15 Cutback Asphalt

This rule requires that certain cutback asphalt not be used. Sierra Pacific Industries, Anderson Division, does not apply cutback asphalt at this facility. Therefore, this requirement is not included in the proposed Title V permit.

MACT Standards for Halogenated Solvent Cleaning Operations

This regulation requires degreasers using certain halogenated solvents to meet certain requirements. Because the degreaser does not use solvents regulated by the standard, the maximum achievable control technology (MACT) standard is not an applicable requirement for this facility. The permit is conditioned so that the permittee notify the District prior to changing the type of solvent used at the facility.

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